CLAIMS

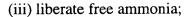
What is claimed is:

- In a method of making fiberglass insulation material by contacting molten glass fibers with an aqueous phenol-formaldehyde resin binder to form coated fiberglass, accumulating and curing the coated fiberglass, and disposing of the unused aqueous phenol-formaldehyde resin binder, the improvement comprising:
- (a) contacting a first portion of the unused aqueous phenol-formaldehyde resin binder with sodium hydroxide to liberate free ammonia,
 - (b) directing the liberated ammonia to a scrubber,
- (c) contacting said first portion of the unused aqueous phenol-formaldehyde resin binder with calcium hydroxide to form insoluble calcium phenate,
- (d) separating the insoluble calcium phenate and other solids from the aqueous components to provide substantially clean water, and
 - (e) recycling the substantially clean water as makeup water for new binder.
- 2. The method of claim 1 wherein said unused aqueous phenol-formaldehyde resin binder is contacted with sodium hydroxide in an amount sufficient to adjust the pH of the aqueous solution to about 13.
- 3. The method of claim 1 wherein at least a portion of said insoluble calcium phenate and other solids is recycled to contact a second portion of unused aqueous phenol-formaldehyde resin binder and to form a second portion of insoluble calcium phenate and other solids.

- 4. The method of claim 3 wherein said second portion of unused aqueous phenol-formaldehyde resin binder is contacted with recycled insoluble calcium phenate and other solids and with fresh calcium hydroxide.
- 5. The method of claim 3 wherein said second portion of unused aqueous phenol-formaldehyde resin binder is contacted with recycled insoluble calcium phenate and other solids, with fresh calcium hydroxide, and with fresh sodium hydroxide.
- 6. The method of claim 3 wherein said second portion of unused aqueous phenol-formaldehyde resin binder is contacted with about 80% of said insoluble calcium phenate and other solids, about 10% fresh calcium hydroxide, about 5% fresh sodium hydroxide, and about 5% water.
- 7. The method of claim 1 wherein said sodium hydroxide is an aqueous solution of sodium hydroxide.

A method for removing contaminants from an aqueous process stream comprising phenol-formaldehyde resin and ammonium hydroxide, said method comprising:

- (a) mixing an alkali metal hydroxide with the aqueous stream to:
 - (i) raise the pH to about 13,
- (ii) replace ammonium ions in the ammonium hydroxide with alkali metal ions, and



- (b) mixing an alkaline earth metal salt with the aqueous stream to contact the phenol-formaldehyde resin and form an insoluble alkaline earth metal phenate; and(c) filtering out the insoluble phenate.
- 9. The method of claim 8 wherein said alkali metal hydroxide is sodium hydroxide.
- 10. The method of claim 8 wherein said alkali metal hydroxide is potassium hydroxide.
- 11. The method of claim 8 wherein said alkali metal hydroxide is lithium hydroxide.
- 12. The method of claim 8 wherein said alkaline earth metal salt is a calcium salt.
 - 13. The method of claim 12 wherein said calcium salt is calcium chloride.
 - 14. The method of claim 12 wherein said calcium salt is calcium nitrate.
 - 15. The method of claim 12 wherein said calcium salt is calcium sulfate.

- 16. The method of claim 12 wherein said calcium salt is calcium acetate.
- 17. The method of claim 8 wherein said alkaline earth metal salt is a magnesium salt.
 - 18. The method of claim 17 wherein said calcium salt is magnesium chloride.
 - 19. The method of claim 17 wherein said calcium salt is magnesium nitrate.
 - 20. The method of claim 17 wherein said calcium salt is magnesium sulfate.
 - 21. The method of claim 17 wherein said calcium salt is magnesium acetate.